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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Adrian Charles Paskins

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EXAMINER

SHELEHEDA, JAMES R

ART UNIT

PAPER NUMBER

2614

8

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,971

Applicant(s)

PASKINS, ADRIAN CHARLES

Examiner

James Sheleheda

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5.7</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it exceeds 150 words.

Appropriate correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

3. Regarding claim 12, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 4, 6, 7, 10, 11, 13 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Arazi et al. (Arazi) (5,966,120).

As to claim 1, Arazi discloses a system (400, Fig. 4) for selectively providing portions of a broadcast data service (auxiliary data; column 9, lines 18-24) transmitted together with broadcast digital television data (primary encoded video program; column 9, lines 13-18) as part of a broadcast signal (video distribution data stream; column 9, lines 11-24), the portions including the data portions having digital television data (column 9, lines 1-10) in non-real time (column 3, lines 59-64), the system comprising:

a processor (Fig. 4; receiver host/program selector) for extracting portions of the broadcast data service available from the broadcast signal (using the program map; column 9, lines 11-24);

a memory (Fig. 4; local auxiliary data storage, 440) for storing all of the current portions of the broadcast data service (column 9, lines 18-24);

a controller (receiver storage controller, 430) responsive to a selection signal (auxiliary read data request signal; column 9, lines 52-58) to cause the memory to output selected portions of the broadcast data service (column 9, lines 52-58); wherein the processor (Fig. 4; receiver host/program selector) is also for converting the digital television data of data portions into real time data (by controlling video augmentation unit, 600; column 9, lines 39-46).

As to claim 4, Arazi discloses wherein the processor operates directly on the data in the memory (wherein the data in storage is directly retrieved from storage for use for use; column 9, lines 52-58).

As to claim 6, Arazi discloses wherein the processor conducts processing using a predefined protocol (wherein a local program (or protocol) determines the data extracted and stored; column 8, lines 56-67).

As to claim 7, Arazi discloses wherein the processor conducts processing using a downloaded protocol (wherein the receiver is remotely programmed (downloaded protocol) to determine the data extracted and stored; column 8, lines 56-67).

As to claim 10, Arazi discloses a digital television receiver (Fig. 4; wherein receiving system, 400, inherently contains a receiver to receive the video distribution

data) for providing the broadcast signal to the processor (Fig. 4; received Video Distribution Data to Receiver Host, 410).

As to claim 11, Arazi discloses wherein the system (Fig. 4) is constructed as a single integral unit (Fig. 4; wherein the receiving and storing system is contained within a single receiver; column 8, lines 46-49).

As to claim 13, Arazi discloses wherein the digital television receiver selectively provides digital television data for display (selected based upon user input; column 9, lines 11-18) and wherein the processor extracts the portions of the broadcast data service irrespective of that display (wherein auxiliary data is selected based upon the contents of that data; column 8, lines 50-67).

As to claim 17, Arazi discloses a method of broadcasting a broadcast data service (auxiliary data; column 6, lines 13-19) together with broadcast digital television data (real time video programming; column 6, lines 13-19) as part of a broadcast signal (column 6, lines 13-19), the method comprising broadcasting the television data of the broadcast data service (auxiliary data; column 6, lines 35-40) as non-real time data (column 6, lines 35-40).

As to claim 18, Arazi discloses processing a block of the television data as a whole (wherein packets for set advertisements are transmitted and stored; column 8, lines 56-67).

As to claim 19, Arazi discloses wherein the block comprises data requiring off-line decoding (wherein the received advertisements are decoded from local storage; Fig. 4; column 9, lines 35-46).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 1 above, and further in view of Otake (EP0854649A1).

As to claim 2, while Arazi discloses wherein the digital television data of the data portions is received and stored offline (wherein it is received in non-real time and stored; column 9, lines 18-24), he fails to specifically disclose wherein the data is processed and the processor processes the data portions off-line.

In an analogous art, Otake discloses a system for receiving video scripts (column 5, lines 45-51) with a television broadcast signal (column 5, lines 20-31) wherein the

scripts are compiled (or processed; column 6, lines 16-22) for use at a later time (offline; column 7, lines 29-32) for the purpose of allowing a plurality of formats (column 5, lines 41-51) to be received and formatted (column 7, lines 29-32) for later real time display with a television broadcast (column 7, lines 39-44).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the data is processed and the processor processes the data portions off-line, as taught by Otake, for the purpose of allowing the real time display of a plurality of different formats of auxiliary information.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi and Otake as applied to claim 2 above, and further in view of Hölzle et al. (Hölzle) (5,970,249).

As to claim 3, while Arazi and Otake disclose wherein the processor processes (compiles) the data portions (see Otake at column 6, lines 16-22), they fail to specifically disclose wherein the data is processed at time of low usage.

In an analogous art, Hölzle discloses a computing system (Fig. 5) wherein program compiling is to be performed is delayed (column 4, lines 1-8) until a period of inactivity by the processor (or low usage; column 4, lines 9-23) for the benefit of more efficiently utilizing system resources (column 4, lines 19-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi and Otake's system to include wherein the data is

processed at time of low usage, as taught by Hölzle, to provide the common benefit of ensuring that a computer system runs as efficiently as possible.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 1 above, and further in view of Winston (6434653).

As to claim 5, while Arazi discloses wherein the processor processes the data, he fails to specifically disclose wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks.

In an analogous art, Winston discloses a computer system (Fig. 1; 100) containing a processor (101 or 104) with an internal cache (102 or 105; column 3, lines 18-19) wherein data from a local memory (113) is loaded into the caches for processing (column 3, lines 18-23) for the benefit of providing the processor with faster access to memory (column 3, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks, as taught by Winston, for the benefit of providing the processor with faster access to memory by loading data into caches local to the processor.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 1 above, and further in view of Kostreski et al. (Kostreski) (5,729,549).

As to claim 8, while Arazi discloses wherein the data is received and processed offline (wherein it is received in non-real time and stored; column 9, lines 18-24), he fails to specifically disclose wherein the processor conducts decryption of the data using a key.

In an analogous art, Kostreski discloses a system for receiving a digital broadcast channel (Fig. 8; column 25, lines 15-22) containing video, audio and data packets (column 25, lines 22-26) wherein the a decryption key is used to decrypt the received packets (column 25, lines 26-35) for the benefit of only allowing access to programming to authorized users (column 25, lines 26-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the processor conducts decryption of the data using a key, as taught by Kostreski, for the benefit of enabling cable providers to protect their programming by preventing access by unauthorized users.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 1 above, and further in view of Asai et al. (Asai) (6,005,599).

As to claim 9, while Arazi disclose the use of a memory, he fails to specifically disclose wherein the memory is a magnetic hard disk or a semiconductor memory.

In an analogous art, Asai discloses a video storage and delivery system (column 6, lines 44-46) wherein video is cached using a magnetic disk or semiconductor

memory (column 16, lines 18-22) for the purpose of utilizing storage devices which have a high-speed response (column 16, lines 18-22).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the memory is a magnetic hard disk or a semiconductor memory, as taught by Asai, for the typical benefit of utilizing a memory device which is capable of providing stored video as quickly as possible.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 10 above, and further in view of Trovato (6,701,526).

As to claim 12, while Arazi discloses a memory, he fails to specifically disclose wherein the memory is constructed in a unit separate from the digital television receiver and linked by means of a network connection such as an IEEE 1394 interface.

In an analogous art, Trovato discloses a cable television receiver (Fig. 2; column 4, lines 29-35) for receiving and extracting EPG data (column 3, lines 66-67 and column 4, lines 1-5) and transmitting the extracted data over an IEEE 1394 connection to an external device (column 10, lines 42-51) for storage (column 10, lines 49-51). This provides the benefit of a portable and modular storage device.

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the memory is constructed in a unit separate from the digital television receiver and linked by means of a network connection such as an IEEE 1394 interface, as taught by Trovato, for the typical benefit

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of providing a cable user with a portable and modular storage device with can be easily moved and replaced.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 1 above, and further in view of Inoue et al. (Inoue) (US2002/0016963A1).

As to claim 14, while Arazi discloses extracting and storing data portions, he fails to specifically disclose wherein the controller identifies corresponding extracted and stored portions and for replacing data portions stored in the memory with respective portions extracted from the broadcast signal.

In an analogous art, Inoue discloses an information receiving apparatus (Fig. 14; 100; paragraph 195) for receiving additional information transmitted with broadcast video (paragraph 75) wherein a controller (input and output control unit, 16) identifies if newly received information is an update of previously stored information (paragraph 200, lines 1-9 and lines 18-40) and replaces the previously stored portions with the newly received update (paragraph 200, lines 27-40) for the typical benefit of ensuring a user has the most up to date information available (paragraph 203).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include wherein the controller identifies corresponding extracted and stored portions and for replacing data portions stored in the memory with respective portions extracted from the broadcast signal, as taught by

Inoue, for the common benefit of providing the most recent broadcast data available to cable television viewers.

As to claim 15, Inoue Arazzi and Inoue disclose wherein, if periodically the broadcast signal includes all of the portions of the broadcast data service (see Inoue at paragraph 202, lines 1-5), the controller can store all of the received portions in the memory (see Inoue at paragraph 202, lines 1-5).

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazzi and Inoue as applied to claim 14 above, and further in view of Picco et al. (Picco) (6,029,045).

As to claim 16, while Arazzi and Inoue disclose wherein the controller can obtain and store in memory all of the portions of the broadcast data service (see Inoue at paragraph 202, lines 1-5), they fail to specifically disclose wherein the controller can access an additional data channel.

In an analogous art, Picco discloses a television set top box (Fig. 8, 120) wherein private data and local content are downloaded (column 9, lines 31-39) and stored for use at a later time (column 9, lines 40-48) over a separate channel from the broadcast television channel (column 9, lines 31-39) for the benefit of providing content to a user on demand (column 9, lines 58-60).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazzi and Inoue's system to include wherein the controller can

access an additional data channel, as taught by Picco, for the common benefit of enabling a cable television provider to quickly deliver content to a user as it's needed.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi as applied to claim 17 above, and further in view of Inoue and Arsenault et al. (Arsenault) (5,886,995).

As to claim 20, while Arazi discloses broadcasting portions of the broadcast data service, he fails to disclose, during normal broadcasting, only broadcasting portions of the broadcast data service required to replace previous respective portions which have been changed such that receivers of the broadcast signal may store all of the current portions of the broadcast data service and update the stored portions according to replacement portions received with the broadcast signal.

In an analogous art, Inoue discloses an information receiving apparatus (Fig. 14; 100; paragraph 195) for receiving additional information transmitted with broadcast video (paragraph 75) wherein a controller (input and output control unit, 16) identifies if newly received information is an update of previously stored information (paragraph 200, lines 1-9 and lines 18-40) and replaces the previously stored portions with the newly received update (paragraph 200, lines 27-40) for the typical benefit of ensuring a user has the most up to date information available (paragraph 203).

Additionally, in an analogous art, Arsenault discloses a cable television broadcast system (Fig. 1) utilizing a receiving apparatus containing a local programming map (column 7, lines 33-35) wherein only updated portions are transmitted to the receiver

(column 7, lines 36-38) for the typical benefit of saving bandwidth (column 7, lines 38-42).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi's system to include during normal broadcasting, broadcasting portions of the broadcasting data service required to replace previous respective portions which have been changed such that receivers of the broadcast signal may store all of the current portions of the broadcast data service and update the stored portions according to replacement portions received with the broadcast signal, as taught by Inoue, for the common benefit of providing the most recent broadcast data available to cable television viewers.

Additionally, it would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi and Inoue's system to include, during normal broadcasting, only broadcasting replacement data, as taught by Arsenault, for the benefit of saving bandwidth in a television system by eliminating the transmission of redundant information.

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi, Inoue and Arsenault as applied to claim 20 above, and further in view of Volk et al. (Volk) (5,673,401).

As to claim 21, while Arazi, Inoue and Arsenault disclose broadcasting all of the current portions of the broadcast data service (see Inoue at paragraph 202, lines 1-5) to enable a user to obtain all portions of the broadcast data service (see Inoue at

paragraph 202, lines 1-5), they fail to specifically disclose broadcasting to enable a user to obtain the data soon after initial connection.

In an analogous art, Volk discloses a set top terminal (48) wherein default programs are requested and transmitted to the set top terminal (column 36, lines 48-59) upon initialization (column 36, lines 48-52). This ensures that the set top terminal can quickly acquire the information it needs for operation.

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi, Inoue and Arsenault's system to include broadcasting to enable a user to obtain the data soon after initial connection, as taught by Volk, for the benefit of ensuring that a cable television receiver can quickly begin operation by acquiring any data it needs upon initialization.

17. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi, Inoue, Arsenault and Volk as applied to claim 21 above, and further in view of Picco.

As to claim 22, while Arazi, Inoue, Arsenault and Volk disclose wherein all of the current portions of the broadcast data service are broadcast, they fail to specifically disclose wherein the data is broadcast using a separate dedicated channel.

In an analogous art, Picco discloses a television set top box (Fig. 8, 120) wherein private data and local content are downloaded (column 9, lines 31-39) and stored for use at a later time (column 9, lines 40-48) over a separate channel from the broadcast television channel (column 9, lines 31-39) for the benefit of providing content to a user on demand (column 9, lines 58-60).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi and Inoue's system to include wherein the data is broadcast using a separate dedicated channel, as taught by Picco, for the common benefit of enabling a cable television provider to quickly deliver content to a user as it's needed by not relying on the bandwidth of the television video channel.

18. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arazi, Inoue, Arsenault and Volk as applied to claim 21 above, and further in view of Payton (5,790,935).

As to claim 23, while Arazi, Inoue, Arsenault and Volk disclose wherein all of the current portions of the broadcast data service are broadcast periodically, they fail to specifically disclose wherein the data is broadcast using an expanded bandwidth at a time of low demand for the broadcast digital television data.

In an analogous art, Payton discloses a television distribution system (Fig. 2) wherein items are transmitted during off-peak hours and stored for later use (column 4, lines 24-40) for the benefit of conserving bandwidth during times of high user demand (column 4, lines 34-44).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Arazi, Inoue, Arsenault and Volk's system to include wherein the data is broadcast using an expanded bandwidth at a time of low demand for the broadcast digital television data, as taught by Picco, to more efficiently utilize available bandwidth and conserve bandwidth during times of high user demand.

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Conclusion

19. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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P.O. Box 1450
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on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) _____ - _____ on _____.
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Signature: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the primary examiner, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda
Patent Examiner
Art Unit 2614

JS



JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600